### APPENDIX A

Field Data Forms

### SWFL SURVEY AND DETECTION FORM

	UTM Zone	
	U IVI Zone	
	Stop Time	
N	_ UTM E <u>0</u> N	
nts		
N	UTM E <u>0</u> NN	
N	UTM E <u>0</u> N	
		— Y N
		— Y N
# SWFLS found	Est. # Pairs Est. # Territories	
N Cowbirds Detected? Y	or N If Y, approx #	
or N If yes, explain		
	N	Time

### SWFL SURVEY AND DETECTION FORM – Additional Waypoints

N N N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	
N	UTM E <u>0</u>	
N		N.T.
	* * * * * * * * * * * * * * * * * * *	N
NT	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
N	UTM E <u>0</u>	N
	N	N       UTM E 0         UTM E 0       UTM E 0          UTM E 0       UTM E 0

### **SWFL SURVEY AND DETECTION FORM – Additional Detections**

Study Area	Survey Site		Date	
Observer(s)			UTM Zo	one
<b>SWFL Detections</b>				
UTM E <u>0</u>			Pair? Y N	Nest Found? Y N
Comments				
UTM E <u>0</u>				
Comments				
UTM E 0				
Comments				
UTM E <u>0</u>	_ N	Banded? Y N U	Pair? Y N	Nest Found? Y N
Comments				
	NT			
UTM E <u>0</u>				
UTM E <u>0</u>				
Comments				
UTM E <u>0</u>	N			
Comments				
UTM E <u>0</u>				
UTM E <u>0</u>			Pair? Y N	Nest Found? Y N
Comments				·
UTM E <u>0</u>	N	Banded? Y N U	Pair? Y N	Nest Found? Y N
Comments				
UTM E <u>0</u>				Nest Found? Y N
UTM E <u>0</u>	_ N	Banded? Y N U	Pair? Y N	Nest Found? Y N
Comments				
UTM E <u>0</u>	N	Randed? V N II	Pair? V N	Nest Found? V N
Comments				

**SWFL General Site Description** (Complete at least 3 times during season: early (15–25 May), mid-season (10–25 June), and late season (10–25 July)

Study A	Area:	Sur	vey Site:				Date: _	
Observ	ver(s):				early_	mid	_ late _	other
Vegeta	tion at site:	>90% nati	ve	50-90% native		50-90% exotic		>90% exotic
Canop	y closure:	<25%	25-50%	50-70%	ó	70-90%	>90%	
Domin	ant oversto	ry species:	TASP	SAGO	SAEX	POFR	Other	
Overst	ory height (	m):						
Domin	ant underst	ory specie	s: TASP	SAGO	SAEX	PLSE	Other	
Unders	story height	(m):						
Other	vegetation t	ypes prese	ent (e.g., c	attail)?	Yes	No		
If yes,	type of veg	etation: _				percentage of s percentage of s percentage of s	ite:	. <u></u>
% of si	ite inundate	d:						
Depth		vater: toes ghs (60-80		·	) 100 cm)	·		knees (40-60 cm) le (>100 cm)
% of si	ite with satu	rated soils	S:		_			
If not i	nundated, d	listance to	standing	water or satura	ated soi	l (m):		
Give a	narrative d	escription	of the site	e, including adj	acent h	abitats:		
Addition	onal comme	nts:						

COLOR	STATUS S C B	SШ	0 0		AGE Y, SY, L,	FECAL SAMPLE?	GENETIC SAMPLE?	FEATHER SAMPLE?	WING	TAIL (mm)	CULMEN	CULMEN CULMEN LENGTH WIDTH	F MASS A (g)
R		ı×	-	, p	or HY	(Y or N)	(Y or N)	(Y or N)	(mm)	<b></b>	(mm)	(mm)	·

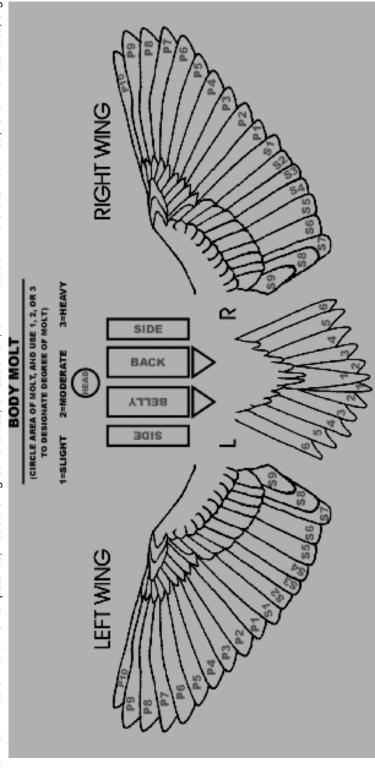
Retained Feathers Present: Yes or No (circle) - if Yes use diagram below Active Molt: Yes or No (circle) - if Yes use diagram below

Tail older (more worn) than PPs and SSs? Yes or No (Circle) Colorimeter sample: Yes or No (circle)

STATUS: NCP (new cap passive), NCT (new cap target), RCP (recap passive), RCT (recap target). NBN (nestling banded) SEX: U=unknown, F=female, M=male

**CP**: 0=non-breeding, S=partial breeding, M=full breeding **BP**: 0= none, 1=smooth, 2=vascularized and filled with fluid, 3 =wrinkled, 4=molting

FAT: 0 = no fat; 1 = trace of fat in furculum, deeply concave, scattered patches, less than 5 percent filled; 2 = thin layer of fat in furculum, less than a third filled, trace of thin layer of fat in abdomen; 3 = furculum is ½ filled or more. Small patches, not covering some areas, on abdomen; or 4 = furculum more than 2/3 filled, level with clavicles, slightly mounded on abdomen



DETAIL ALL MOLTS AND RETAINED FEATHERS ONTO DIAGRAM AND DETAIL IN NOTES

### Colorimetry Data Sheet

		NTS		*q															
		BACK MEASUREMENTS		*"															
	FED BAND NUMBER:	BACK M	PAGE:_	*_															
DAIE	FED BA				-	2	က	4	2	9	7	∞	MAX	Z	AVG	SD			
		SL		*q															
		CROWN MEASUREMENTS	E:	*"															
		CROWN ME	PAGE: _	*_															
	Ë				-	7	က	4	2	9	7	ω	MAX	Z Z	AVG	SD	_		
	BANDER:																NOTES:		

Date:\_\_\_\_

of.

NBN OBSERVATIONS AND COMMENTS: discuss observations & (\_\_of\_\_) activities. Service Band Number = Service Band Number SEX **PRESENT** # MIELLS CONF ASSOC ELEVL WITH A DR NEST? PT COLOR COMBO RIGHT LEG (Top/ Bottom) LEFT LEG (Top/ Bottom) OBS STUDY TERR NEST AREA

Date entered:\_

Entered by: \_

### Willow Flycatcher Territory/Nest Record Form (2005)

Distance to standing water or saturated soil when nest found:(m) orthing: Depth of surface water at nest (please circle how wet you got when nest was found):  ### dry saturated soil toes (<5cm) ankles (5-15 cm) asking:	Study Area:		Survey Site:				Territor	y/Nest 1	no.:
Nest Substrate:				t:	m	(approximate)	)		
SAEX = coyoue willow, etc.)  SAEX = coyoue willow, etc.)  Distance to standing water or saturated soil when nest found:	NAD:	Zone:		ate:	(e	.g., TASP=tamar	isk, SAGO=Goodd	ing willow,	POFR=cottonwood,
Depth of surface water at nest (please circle how wet you got when nest was found):  PS Accuracy:m	Γerritory UTMs	:	SAEX = coyon	te willow, etc.)	)				
Depth of surface water at nest (please circle how wet you got when nest was found):    Depth of surface water at nest (please circle how wet you got when nest was found):	Easting:		— Distance to	standing wa	ater or saturat	ed soil when i	nest found:		(m)
dry saturated soil toes (<5cm) ankles (5-15 cm) est UTMs: calves (15-40 cm) knees (40-60 cm) thighs (60-80 cm) sating: waist (100 cm) too deep to wade (>100 cm)  PEASE DO NOT FILL OUT ANYTHING BELOW  Ird 1: Color band combination: Band Number: Fem ird 2: Color band combination: Band Number: Male  Willow Flycatcher Willow Flycatcher  Trans dates B (T/F) No. Presumed Confirmed  First egg Segs Nestlings First egg Segs Nestlings Fledglings Fledged Segs Nestlings Fledglings Fledged Fledglings Success (WIFL) Period #Exposure days Success (WI	Northing:		 Depth of su	rface water	at nest (pleas	e circle how v	vet vou got whe	n nest wa	as found):
calves (15-40 cm) knees (40-60 cm) thighs (60-80 cm)  asting:	SPS Accuracy:	m	r		*				
PLEASE DO NOT FILL OUT ANYTHING BELOW    PLEASE DO NOT FILL OUT ANYTHING BELOW	lest UTMs:			•				,	ŕ
PLEASE DO NOT FILL OUT ANYTHING BELOW  Ird 1: Color band combination: Band Number: Fem.  Ird 2: Color band combination: Band Number: Male  Willow Flycatcher Willow Flycatcher  Frans dates B C (T/F) No. Presumed Confirmed  Found Eggs First egg First egg First egg First egg First egg First egg Fledgelings  I Clutch completion Fledglings Fledged Fledglings  I Hatching Fledged Fledged Fledged Fledglings  I Fledged Fledged Fledged Fledged Fledglings  I Fledged Fledged Fledged Fledged Fledglings  Mayfield Success  Willow Flycatcher  Cowbird Cowbird  Trans dates B C (T/F) No. Complete? (Times of the complete fledglings)  Fledglings Fledged Fledglings  I Fledged Fledged Fledglings  I Fledged Fledged Fledglings  Mayfield Success  WiFL) Period # Exposure days Success  Egg Laying  Incubation  Nextling  Nextling  Nextling  Nextling  Nextling  Nextling	asting:			waist	(100 cm)	too deep to v	vade (>100 cm)		
PLEASE DO NOT FILL OUT ANYTHING BELOW  Ind 1: Color band combination: Band Number: Fem.  Ind 2: Color band combination: Band Number: Male  Willow Flycatcher Willow Flycatcher  Frans dates B (T/F) No. Presumed Confirmed  Found Eggs  First egg Nestlings First egg First egg Nestlings  First egg Nestlings Fledglings Fledged Fled	lorthing:					-			
Band Number:   Fem.	SPS Accuracy:	m							
Willow Flycatcher  Frans dates   B   (T/F)   No.   Presumed   Confirmed   Trans dates   B   (T/F)   No.   Complete? (Trans dates   B   (T/F)   No.   Complete? (Trans dates   B   (T/F)   No.   Complete? (Trans dates   D   (T/F)   (T/F)   No.   Complete? (Trans dates   D   (T/F)   (T/F	Bird 1: Color b	_							Female
Willow Flycatcher  Frans dates   B   (T/F)   No.   Presumed   Confirmed   Trans dates   B   (T/F)   No.   Complete? (Trans dates   B   (T/F)   No.   Complete? (Trans dates   B   (T/F)   No.   Complete? (Trans dates   D   (T/F)   (T/F)   No.   Complete? (Trans dates   D   (T/F)   (T/F									
Frans dates B D (T/F) No. Presumed Confirmed  Found Eggs  First egg First egg Nestlings  Clutch completion Fledglings  Hatching Fledged Fledge						_			
Found  Found  Found  First egg  First egg  Clutch completion  Hatching  Fledged or Failed  Hatching  Fledged or Failed  Fledged or Failed  Mayfield Success  Wayfield Success  (WIFL) Period # Exposure days  Egg Laying  Mayfield Success  (WIFL) Period # Exposure days  Egg Laying  Incubation  Nestling  Fledged or Failed  Mayfield Success  (WIFL) Period # Exposure days  Egg Laying  Incubation  Nestling  Mayfield Success  (WIFL) Period # Exposure days  Egg Laying  Incubation  Nestling		atcher	Willow I	Flycatcher	<u>.                                    </u>	Cowbird	D	Cowl	bird
Clutch completion Hatching Fledged or Failed  Dutcome (Record code & describe):  Sultcome (WiFL) Period # Exposure days Success (WiFL) Period # Ex		1 1	No. Presumed			Trans dates	D (17F)	<u> </u>	Complete? (T/F)
Clutch completion Hatching Fledged or Failed  Dutcome (Record code & describe):  System of the vicinity of nest; FP= fledged young, with at least one young seen leaving or in the vicinity of nest; FP= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledging of at least one young; FC= fledged at least one host young with cowbird parasitism; FD= Nest partially depredded with confirmed fledgling of at least one young; PC= probable predation, nest empty and intact; PD= needation observed; PE= probable predation, nest empty and intact; PD= needation, damage to nest structure; AB= nest abandoned prior to togg(s) being laid; DE= deserted with egg(s) or young; PA= parasitized, host				1			<del>                                     </del>		<del></del>
Hatching Fledged or Failed  Dutcome (Record code & describe):  System of the vicinity of nest; FP= fledged young, with at least one young seen leaving or in the vicinity of nest; FP= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledging of at least one young; FC= fledged at least one host young with cowbird parasitism; FD= young; FC= fledged at least one host young with cowbird parasitism; FD= young; FC= fledged at least one host young with cowbird parasitism; FD= young; FC= fledged at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledgling of at least one young; FC= fledged at least one young; FC= fledged at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledgling of at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledgling of at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling of at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling of at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling of at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling of at least one young; FC= fledged young, as determined by parents behaving as f dependent fledgling of at least one young		-						Ŭ <b>—</b> —	Nestlings
Putcome (Record code & describe):  Dutcome codes:  JN= unknown; FY= fledged young, with at least one young seen leaving or in he vicinity of nest; FP= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledging of at least one young; FC= fledged at least one host young with cowbird parasitism; FD= Nest partially depredated with confirmed fledging of at least one young; PO= predation observed; PE= probable predation, nest empty and intact; PD= probable predation, damage to nest structure; AB= nest abandoned prior to togg(s) being laid; DE= deserted with egg(s) or young; PA= parasitized, host		-	etion		Fledglings		Fledge	1	Fledgling
Dutcome (Record code & describe):  Dutcome codes:  JN= unknown; FY= fledged young, with at least one young seen leaving or in the vicinity of nest; FPe fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledging of at least one young; FC= fledged at least one host young with cowbird parasitism; FD=  Nest partially depredated with confirmed fledging of at least one young; PO= predation observed; PE= probable predation, nest empty and intact; PD= morbable predation, damage to nest structure; AB= nest abandoned prior to gg(s) being laid; DE= deserted with egg(s) or young; PA= parasitized, host		<del>-</del>							
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JN= unknown; FY= fledged young, with at least one young seen leaving or in the vicinity of nest; FP= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledging of at least one young; FC= fledged at least one host young with cowbird parasitism; FD= Nest partially depredated with confirmed fledging of at least one young; PO= probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation p	<b>Outcome</b> (Re	cord code & d	escribe):	.:					
JN= unknown; FY= fledged young, with at least one young seen leaving or in the vicinity of nest; FP= fledged young, as determined by parents behaving as f dependent fledgling(s) nearby; FU= suspected fledging of at least one young; FC= fledged at least one host young with cowbird parasitism; FD= Nest partially depredated with confirmed fledging of at least one young; PO= probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the target of the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation probable predation, damage to nest structure; AB= nest abandoned prior to the probable predation p									
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roung; FC= fledged at least one host young with cowbird parasitism; FD= Nest partially depredated with confirmed fledging of at least one young; PO= probable predation, damage to nest structure; AB= nest abandoned prior to leage(s) being laid; DE= deserted with egg(s) or young; PA= parasitized, host    Egg Laying	the vicinity of nest	; FP= fledged young,	as determined by parer	nts behaving as		FL) Period	# Exposure da	ys	Success
oredation observed; PE= probable predation, nest empty and intact; PD= orobable predation, damage to nest structure; AB= nest abandoned prior to egg(s) being laid; DE= deserted with egg(s) or young; PA= parasitized, host	young; FC= fledge	ed at least one host yo	ung with cowbird paras	sitism; <b>FD</b> =		Laying			
egg(s) being laid; <b>DE</b> = deserted with egg(s) or young; <b>PA</b> = parasitized, host	predation observed	l; PE= probable preda	ation, nest empty and in	tact; PD=	Incul	oation			
	egg(s) being laid; l	DE= deserted with egg	g(s) or young; <b>PA=</b> par	rasitized, host		ling			

WE= failure due to weather; AD= failure, entire clutch addled/infertile; OT=

failure due to other, or unknown, causes.

 $\begin{array}{lll} \textbf{Mayfield} & \textbf{success} & \textbf{codes} \colon S \text{= successful; } \textbf{D} \text{= depredated; } \textbf{U} \text{= status} \\ \textbf{unknown/nest occupied- fate unknown; } \textbf{M} \text{= mortality other than predation;} \end{array}$ 

A= abandoned with host egg(s) or young; Z= abandoned, no (zero) eggs laid.

# Willow Flycatcher Territory/Nest Record Form (continued)

Territory/Nest no.:	Comments															
	Age Yng															
	#WF Fldg															
	# CB Nstl								•			•			•	
Survey Site:	# WF Nstl								•			•			•	
Surv	# CB Egg														-	
	# WF Egg															
	Adult pres.											•			•	
Area:	Stage														-	
Study Area:_	Mon Type											•			-	
0,1	Obs T								•			•				
	ut															
	Time In O														-	
	Date															

## **Brown-headed Cowbird Traps**

Observer(s):			1	St	Start Time:	me: _			- Enc	End Time:	<b>.</b>			Date:	te:			
Study Area:			1															
Trap #																		
COWBIRDS	M	ഥ	ſ	M	Н	J	M	ഥ	J	M	Н	J	M	ц	J	M	Ц	ſ
Decoys previously in trap																		
Newly trapped																		
$Added^2$																		
Died in trap																		
Escaped																		
Transferred <sup>3</sup>																		
Euthanized																		
Total left in trap <sup>4</sup>																		
NON-TARGET SPECIES <sup>5</sup>																		
Comments																		

### LCR Southwestern Willow Flycatcher Project - Vegetation Datasheet

Stu	ıdy a	rea	a:					Surv	ey site:					Plot ty	pe:				ID#:			
Da	te:			C	)b	s:					UTM:	•		E				N G	PS Acc	uracy:		m
Ne	st site	e or	nly		5	Substr.:			All plot					t water:		m	Woo	dy Grou	nd Cover		Total Car	пору
Sul	ostr. [	ОВН	<b>l</b> :	cm	5	Substr. I	Ht.:	m	Dist car	юру	gap:	m	Dis	t. Broadle	eaf:	m	N:		E:	N:		
Ne: or	st Ht.:		%-	m	9/	% X		m	Top Car		<b>%-</b>	m %	X		m		S:		W:	S:		
Oi	Spe				TAS	-		.GO	•	AEX		PO			NAG	С	TSP1:		OTSP2:		OTSP3:	
			<1																			
٨		Shr																				
< or = 8 cm dbh	ln 5	Shrub/Sapling Count	1-2.5																			
8 cm	In 5m Plot	pling	2.6-5.5																			
dbh	<b>~</b>	Cour	2.0 0.0																			
			5.6-8																			
	Spe	cies	,		TAS	SP	SA	AGO	s	AEX		РО	FR	S	NAG	0	TSP1:		OTSP2:		OTSP3:	
	Оро		8.1-			<u>.                                    </u>	<u> </u>					. 0							0.0.2.		0.0.0.	
			10.5																			
v 8	<u> </u>	Tre	10.5- 15		_					_												
> 8 cm dbh	In 5m Plot	Tree Count																				
bh	유	ᇍ	/leasured Tre																			
			Measured Trees >15 cm dbh																			
	Spe	cies			TAS	SP	SA	\GO	S	AEX		РО	FR	S	NAG	(	OTSP1	:	OTSP2	:	OTSP3:	
>8 0																						
>8 cm dbh	olot	6 €	Tree Count in																			
	OTE																					

<sup>\*</sup> If, at ankle height or above, shrub/sapling/tree splits into multiple branches, count it as one stem and measure the biggest stem. If splits below ankle height, count all stems

<sup>\*\*</sup> If shrub/sapling/tree is not at least breast height, do not count

### Vertical Foliage Sampling (i.e., "Hits on the pole"): Microplot Vegetation

		CI	ENTER	R PLO	Γ		
	Hits/S	Species					
Height (m)	Tasp	Sago	Saex	Pofr	Snag	Otsp 1*	Otsp 2**
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Record number of decimeters with hits on pole (within 10 cm radius) per 1-m interval up to 8 m; above 8 m, estimate 0, < 5, or > 5 or hits per meter interval.

* Other species 1 (write out full name) _	
** Other species 2 (write out full name)	

### Vertical Foliage Sampling (i.e., "Hits on the pole") Data Form: Microplot Vegetation

Study area: Survey site:				Plot type:			ID#:								
Date:				bs.:											
Vertical NORTH		ge Volt Species						EAST	Hite/9	Specie	g				
	Tasp	Sago	Saex	Pofr	Snag	Oten	Oten		Hits/Species			Oten			
Height (m)	rasp	Sagu	Saex	FOII	Snag	Otsp 1*	Otsp 2**	(m)	Tasp	Sago	Saex	Pofr	Snag	Otsp 1**	Otsp 2**
1								1							
2								2							
3								3							
4								4							
5								5							
6								6							
7								7							
8								8							
9								9							
10								10							
11								11							
12								12							
13								13							
14								14							
15								15							
16								16							
17								17							
18								18							
19								19							
20								20							
21								21							
22								22							
23								23							
24								24							
25								25							

SIDE 1

<sup>\*</sup> Other species 1 (write out full name) \*\* Other species 2 (write out full name)

### SIDE 2

SOUTH	Tasp	Sago	Saex	Pofr	Snag	Otsp 1*	Otsp 2**	WEST	Tasp	Sago	Saex	Pofr	Snag	Otsp 1*	Otsp 2**
1								1							
2								2							
3								3							
4								4							
5								5							
6								6							
7								7							
8								8							
9								9							
10								10							
11								11							
12								12							
13								13							
14								14							
15								15							
16								16							
17								17							
18								18							
19								19							
20								20							
21								21							
22								22							
23								23							
24								24							
25								25 s up to 8 n							

Record hits on pole (within 10 cm radius) per 0.1 m intervals up to 8 m; above 8 m, estimate 0, < 5, or > 5 hits per interval.

* Other species 1 (write out full name) _	
** Other species 2 (write out full name)	

### **SWFL Microclimate at Life History Study Areas**

Study Area	Surv	ey Site	LO	(Study area) – (Location) – (Number)								
UTM coordinates:	Easting (x	9 0	Northi	ng (y)		Ac	curacy	m				
Dominant habitat v	vithin 10 m	: Cottonwood/	Willow Tama	risk Mixed N	Vative/Exot	ic Othe	er (specify:		)			
Estimated canopy of	over at the	e logger: Less	than 25%	25%-75%	Mo	re than 7	75%					
<u> </u>	Temperature/Relative Humidity (T/RH)											
Set-up: Date (MM/I	DD/YY):		Time (milit	ary):	C	rew mer	mber(s)					
Logger 6-digit serial number (e.g., #630863): Was red LED checked at set-up? Y or N												
If nest site, when was nest vacated (known or estimated; MM/DD/YY)?												
Logger location: Tree Shrub Est. overall height of tree or shrub? m Est. height of logger m												
Take-down: Date (MM/DD/YY):   Time (military):   Crew member(s):												
Logger 6-digit serial	number (e	.g., #630863):										
Did any events occur that might have interfered with accuracy of data gathered by this logger (e.g., array blown out of tree, etc.)? No Yes If yes, explain:												
			Soil Mois	sture (SM)								
Set-up: Date (MM/l	DD/YY):				Crew member(s)							
6-digit sensor serial	number:		logger nun	nber:								
Soil sample taken (a	t set-up onl	y)? Yes No	If no, explain:									
SM readings: Plot of	enter	%mV										
<b>N:</b> 1.0 m% _	mV	2.0 m9	%mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV			
<b>E:</b> 1.0 m% _	mV	2.0 m9	6mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV			
Distance to saturat	ed/inundat	ed soil:	m									
Take-down: Date (1	MM/DD/Y	Y):	Time (	military):	C	rew mer	mber(s):					
6-digit sensor serial	number:		logger nun	nber:								
SM readings: Plot of	enter	%mV		I			I					
<b>N:</b> 1.0 m% _	mV	2.0 m9	%mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV			
<b>E:</b> 1.0 m% _	mV	2.0 m9	%mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV			

Location identifier format: Study area code (MW, MM, PA, TM) – Location code (NS, WT, SU, SVR, SVD) – Nest number (for NS, WT, SU locations) or Seasonal Variation number; e.g., TM-SU-9A or MM-SVD-2

**Distance to saturated/inundated soil:** \_\_\_\_\_ m

### **SWFL Microclimate at Life History Study Areas**

### **Seasonal Variation Supplement**

Study Area	Survey Site	LOCATION ID		
		(Study area) –	(Location)	– (Number)

					TP' ( '11'. )				G 1 ()			
Date (MM/DI				Time (military):logger number:					mber(s):			
_				_	ger nun	nber:						
SM readings			1			Í			I			
<b>N:</b> 1.0 m												
<b>E:</b> 1.0 m						<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to s	aturated	/inundat	ed soil: _		m							
Date (MM/DI	D/YY):_			Time	e (milita	ry):		Crew me	mber(s):			
6-digit sensor	serial nu	ımber:		log	ger nun	nber:						
SM readings	: Plot ce	nter				1						
<b>N:</b> 1.0 m	%	mV	2.0 m _	%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m	%	mV	2.0 m _	%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to s	aturated	/inundat	ed soil: _		m							
Date (MM/DI	D/YY):_			Time	e (milita	ry):		Crew me	mber(s):			
6-digit sensor serial number:			log									
SM readings												
<b>N:</b> 1.0 m	%	mV	2.0 m	%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m	%	mV	2.0 m	%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to s	aturated	l/inundat	ed soil: _		m	•						
Date (MM/DI			Time	e (milita	ıry):		Crew me	mber(s):				
6-digit sensor serial number:			log	ger nun	nber:							
SM readings				_								
<b>N:</b> 1.0 m	%	mV	2.0 m _	%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m												
Distance to s						•						
					Time (military):				Crew member(s):			
				logger number:								
SM readings				_				- <del></del>				
N: 1.0 m			1		mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m												
Distance to s												
Date (MM/DI						ırv):		Crew me	mber(s):			
						nber:			( ) ==			
SM readings												
N: 1.0 m					mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m												
Distance to s												
Date (MM/DI						ry):		Crew me	mber(s):			
6-digit sensor									- (~)			
SM readings				_								
N: 1.0 m			1		mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m												
Distance to s												

Page	1	of	

### Microclimate at Sites South of Topock - T/RH

Study Area Survey Site		LOCATION ID								
		(Study area) – (Survey site) – (Number)								
UTM coordinates: Easting (x) 0	Northing (y)									
Dominant habitat within 10 m: Cottonwood/	Willow Tamarisk Mixe	ed Native/Exotic Other (specify:								
Estimated canopy cover at the logger: Less	than 25% 25%-75	5% More than 75%								
Temperature/Relative Humidity (T/RH)										
Set-up: Date (MM/DD/YY):	Time (military):	Crew member(s)								
Logger 6-digit serial number (e.g., #630863):		Was red LED checked at set-up? Y or N								
Logger location: Tree Shrub Est. overall he	eight of tree or shrub?	m Est. height of logger m								
Download: Date (MM/DD/YY):	_ Time (military):_	Crew member(s):								
Logger 6-digit serial number (e.g., #630863):		Did you check red LED? Y or N								
Did any events occur that might have interfered No Yes If yes, explain:	with accuracy of data ga	thered by this logger (e.g., blown out of tree, etc.)?								
Download: Date (MM/DD/YY):	_ Time (military):_	Crew member(s):								
Logger 6-digit serial number (e.g., #630863):		Did you check red LED? Y or N								
Did any events occur that might have interfered No Yes If yes, explain:	with accuracy of data ga	thered by this logger (e.g., blown out of tree, etc.)?								
Download: Date (MM/DD/YY):	_ Time (military):_	Crew member(s):								
Logger 6-digit serial number (e.g., #630863):		Did you check red LED? Y or N								
Did any events occur that might have interfered No Yes If yes, explain:	with accuracy of data ga	thered by this logger (e.g., blown out of tree, etc.)?								
Download: Date (MM/DD/YY):	_ Time (military):_	Crew member(s):								
Logger 6-digit serial number (e.g., #630863):		Did you check red LED? Y or N								
Did any events occur that might have interfered No Yes If yes, explain:	with accuracy of data ga	thered by this logger (e.g., blown out of tree, etc.)?								

Location ID codes: Study area codes – Topock Gorge = TG, Ehrenberg = EH, Cibola = CI, Imperial = IM, Mittry = MI, Yuma = YU.

Survey site codes – Blankenship = BK, Havasu NE = HV, Three Fingers Lake = TF, Cibola Lake = CL, Walker Lake = WL, Paradise = PV, Hoge Ranch = HR, Rattlesnake = RS, Clear Lake = LK, Ferguson Lake = FL, Ferguson Wash = FW, Great Blue Heron = GB, Martinez Lake = ML, Mittry West = MW, Gila Confluence North = GC

of

### Microclimate at Sites South of Topock – T/RH, continued

Study Area	Survey Site									
			(Study area) – (Survey site) – (Number)							
Download: Date (M	[M/DD/YY):	Time (military):	Crew member(s):							
Logger 6-digit serial	number (e.g., #630863):		Did you check red LED? Y or N							
Did any events occu No Yes If yes, exp		vith accuracy of data g	athered by this logger (e.g., blown out of tree, etc.)?							
Download: Date (M	IM/DD/YY):	Time (military):	Crew member(s):							
Logger 6-digit serial	number (e.g., #630863):		Did you check red LED? Y or N							
Did any events occu No Yes If yes, exp		vith accuracy of data g	athered by this logger (e.g., blown out of tree, etc.)?							
<b>Download</b> : Date (M	[M/DD/YY):	Time (military):	Crew member(s):							
			Did you check red LED? Y or N							
Did any events occu No Yes If yes, exp		vith accuracy of data g	athered by this logger (e.g., blown out of tree, etc.)?							
Download: Date (M	[M/DD/YY):	Time (military):	Crew member(s):							
Logger 6-digit serial	number (e.g., #630863):		Did you check red LED? Y or N							
Did any events occu No Yes If yes, exp		vith accuracy of data g	athered by this logger (e.g., blown out of tree, etc.)?							
Takedown: Date (M	1M/DD/YY):	_ Time (military):	Crew member(s):							
Logger 6-digit serial	number (e.g., #630863):		Did you check red LED? Y or N							
Did any events occu No Yes If yes, exp		vith accuracy of data g	athered by this logger (e.g., blown out of tree, etc.)?							

### **Microclimate at Sites South of Topock – Soil Moisture 2005**

Study Area	Survey Site	LOCATION ID
		(Study area) – (Survey site) – (Number

### Soil Moisture (SM)

Set-up: Date (MM/DD/YY):		Time (military):				Crew member(s)				
6-digit sensor serial number:		logger nun	nber:							
Soil sample taken (at set-up only	v)? Yes No I	f no. explain:								
SM readings: Plot center										
<b>N:</b> 1.0 m%mV	i .		<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV		
<b>E:</b> 1.0 m%mV										
	Distance to saturated/inundated soil: m									
Date (MM/DD/YY):		Time (milita	nry):		Crew me	mber(s):				
6-digit sensor serial number:		logger nun	nber:							
SM readings: Plot center	%n	ıV								
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV		
<b>E:</b> 1.0 m%mV	2.0 m%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV		
Distance to saturated/inundated soil: m										
Date (MM/DD/YY):	<del></del>	Time (military):			Crew me	mber(s):				
6-digit sensor serial number:		logger number:								
SM readings: Plot center										
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV		
<b>E:</b> 1.0 m%mV			<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV		
Distance to saturated/inundate	ed soil:	m								
Date (MM/DD/YY):		Time (milita	ary):		Crew me	mber(s):				
6-digit sensor serial number:		logger nun	nber:							
SM readings: Plot center	%n	ıV	ı			1				
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV		
<b>E:</b> 1.0 m%mV	· ·		<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV		
Distance to saturated/inundate	ed soil:	m								
Date (MM/DD/YY):		Time (milita	nry):		Crew me	mber(s):				
6-digit sensor serial number:		logger nun	nber:							
SM readings: Plot center	1		Ī			1				
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV		
<b>E:</b> 1.0 m%mV			<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV		
Distance to saturated/inundate	ed soil:	m								
Date (MM/DD/YY):	<del></del>	Time (milita	ary):		Crew me	mber(s):				
6-digit sensor serial number:		logger nun	nber:							
SM readings: Plot center	%n	ηV	1							
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV		
<b>E:</b> 1.0 m%mV	2.0 m%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV		
Distance to saturated/inundate	ed soil:	m								

### Microclimate at Sites South of Topock – Soil Moisture 2005

### **Supplement**

Study Area	Survey Site	LOCATION ID
		(Study area) – (Survey site) – (Number)

### Additional SM readings

Date (MM/DD/YY):	Tir	Time (military):			Crew member(s):				
6-digit sensor serial number:	lo	logger number:							
SM readings: Plot center	%mV								
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m%mV	2.0 m%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to saturated/inundated	d soil:	m							
Date (MM/DD/YY):	Tir	Time (military):			Crew member(s):				
6-digit sensor serial number:	lo	logger number:							
SM readings: Plot center			1			1			
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m%mV	2.0 m%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to saturated/inundated	d soil:	m							
Date (MM/DD/YY):	Tir	me (milita	ry):		Crew member(s):				
6-digit sensor serial number:	lo	ogger num	ıber:						
SM readings: Plot center	%mV		ī						
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m%mV	2.0 m%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to saturated/inundated	d soil:	m							
Date (MM/DD/YY):	Tir	Time (military):			Crew member(s):				
6-digit sensor serial number:	lo	logger number:							
SM readings: Plot center			1						
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
	2.0 m%		<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to saturated/inundated	d soil:	_ m							
Date (MM/DD/YY):	Tir	Time (military):			Crew member(s):				
6-digit sensor serial number:	lo	ogger num	ıber:						
SM readings: Plot center			1			1			
<b>N:</b> 1.0 m%mV	2.0 m%	mV	<b>S:</b> 1.0 m	%	mV	2.0 m	%	mV	
<b>E:</b> 1.0 m%mV	2.0 m%	mV	<b>W:</b> 1.0 m	%	mV	2.0 m	%	mV	
Distance to saturated/inundated	d soil:	m							
Date (MM/DD/YY):	Tir	Time (military):			Crew member(s):				
6-digit sensor serial number:	1,	ogger num	ber:						
	10	- 66							
SM readings: Plot center	%mV					1			
						2.0 m	%	mV	
<b>N:</b> 1.0 m%mV	%mV 2.0 m% 2.0 m%	mV mV	<b>S:</b> 1.0 m	%	mV				